

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Process for preparation of lactic acid and/or lactate, comprising: homolactically and anaerobically fermenting in a fermentation broth a pentose-containing substrate by a moderately thermophilic *Bacillus* species to form lactic acid and/or lactate; wherein the pentose-containing substrate contains a smaller amount of hexose monomers than pentose monomers.
2. (Previously Presented) Process according to claim 1, wherein the pentose-containing substrate comprises xylose.
3. (Previously Presented) Process according to claim 1, wherein the moderately thermophilic *Bacillus* species is selected from *Bacillus coagulans* and *Bacillus smithii*.
4. (Previously Presented) Process according to claim 1, wherein the pentose-containing substrate comprises arabinose.
5. (Previously Presented) Process according to claim 1, wherein the pentose-containing substrate comprises glucose.
6. (Previously Presented) Process according to claim 1, wherein the fermenting is performed by a mixture of moderately thermophilic *Bacillus* species and another lactic-acid producing microorganism.
7. (Previously Presented) Process according to claim 1, further comprising separating the lactic acid and/or lactate from the fermentation broth.
8. (Previously Presented) Process according to claim 1, wherein the moderately thermophilic *Bacillus* species is grown on a chemically defined medium.
9. (Currently Amended) Process according to claim 7, further comprising removing biomass from the fermentation broth prior to separating the lactic acid and/or

~~lactate from~~ lactate from the fermentation broth, wherein the moderately thermophilic *Bacillus* species is grown on a chemically defined medium prior to the step of homolactically and anaerobically fermenting.

10. (Currently Amended) Process according to claim 7, further comprising
subjecting the lactic acid and/or lactate to one or more purification steps after separating the
lactic acid and/or lactate from the fermentation broth, wherein the moderately thermophilic
Bacillus species is grown on a chemically defined medium prior to the step of homolactically
and anaerobically fermenting.